TOPDECK SOLID TIMBER FLOORING

INSTALLATION GUIDE

Contents

Important points summary

- ***Indoor use only product***
- ***Acclimatise accordingly , check moisture levels for timber & EMC for installation site.***
- ***Check product delivered matches customer order***
- ***Customer & installer should decided the direction which the floor is to be laid***
- ***The product is to be kept in the packaging just prior to installation.***
- ***Runs in the width should not exceed 6m without an expansion gap***
- ***80-90mm narrow width boards must to be secret nailed & glued to an appropriate subfloor***
- ***92-130mm wide width boards must be trowel glued & secret nailed to an appropriate subfloor***
- ***The customer must be informed on how to care for their solid timber floor***

General product properties

Topdeck Solid Prefinished Timber flooring is great for most indoor domestic and commercial applications. As timber is hygroscopic - meaning it naturally absorbs and expels moisture in response to local conditions. As timber absorbs moisture it expands and as it expels moisture it contracts. Factors such as moisture ingress (subfloor or other), relative humidity (atmospheric moisture), air conditioning , direct sunlight and inadequate ventilation can cause the timber floor to expand or contract. Solid timber flooring may need to be acclimatised to the local environment before installation. It is the Installers responsibility to correctly assess the suitability of the site prior to the installation of timber flooring , as well as advising the customer the suitable environment for the timber floor once it has been installed. TOPDECK Pre-finished Solid Timber should be installed in an area which is occupied, protected from direct heat and sunlight and where heating and cooling systems are in place and used to control the internal temperatures and humidity before, during and after installation. TOPDECK Pre-finished Solid Timber flooring must not be installed in wet areas including bathrooms, toilets, areas or rooms where a floor water drain is required or present.

Product handling & storage

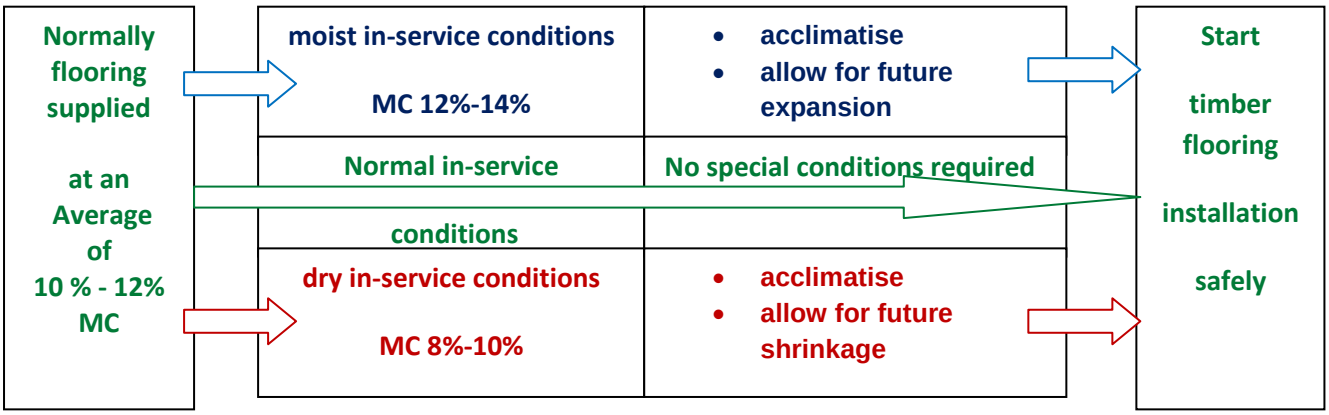
Please check all delivered material matches the work order and that product is not damaged or defective prior to installation. The owner / installer must inspect all material to ensure that there are no visible defects and that all materials match the order. Should the person doing the installation determine that the product has any possible defect **please call the supplier immediately** for inspection and possible replacement prior to installation. All questions of product quality are to be addressed prior to installation. The product must be stored in a completed building where it is protected from the environment, meaning, the building must have a sub-floor, roof, walls windows & doors in a completed operational state. TOPDECK Pre-finished Solid Timber flooring should only be installed in the final stages of completion of a construction project with all trades people having left the site. All work involving water or moisture should be completed prior to installation. TOPDECK Pre-finished Solid Timber is fit for use in internal installations only and should not be used external environments.

Acclimatisation

Acclimatising is the process of allowing partial equalisation of the moisture content of the timber as supplied to that of the surroundings in which the timber is to be installed. Increasing the average moisture content will only be effective if the humidity in the air is sufficient to cause moisture uptake. The rate of moisture uptake differs from species to species. Acclimatising can be effective in reducing the average moisture content of the flooring prior to laying and thereby reducing gap sizes at board edges from board shrinkage. In such climates, future expansion of the floor must be allowed for to accommodate periods of wet weather. The moisture content of timber is the percentage weight of water present in the timber compared to the weight of the timber with all water removed. Moisture content varies with changes in humidity and temperature in the surrounding air. Small seasonal changes in timber flooring are a normal occurrence and small gaps that open up during dry periods are not considered a defect. To minimise the movement of a timber floor caused by swelling on moisture uptake and shrinking on moisture loss, it is important to lay and fix a timber floor that is close to the average moisture content of the environment in which it is to be laid.

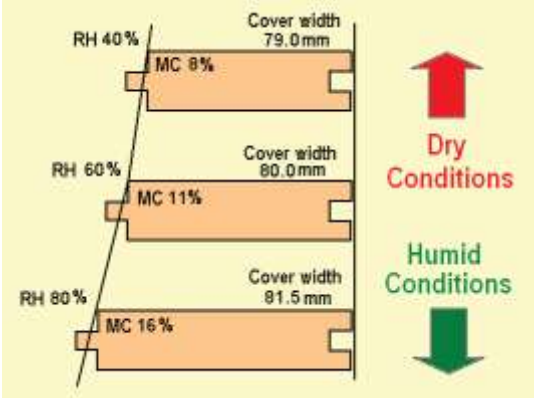
Site climate assessment

Every site requires climate assessment prior to the installation of a timber floor. It is important to know the long term relative humidity (RH) for the area where the floor is to be installed. Relative humidity is the major influence determining whether solid timber flooring will absorb moisture from the air and swell, or whether it will lose moisture and shrink. If the moisture content of the timber floor is close to the average long term relative humidity for the area then subsequent seasonal changes will be minimal. However, if the long term relative humidity for the area is significantly different to that of the timber flooring, seasonal changes in the moisture content of the floor can create problems. Onsite relative humidity is measured with a Hygrometer. It is recommended that Relative Humidity (RH) and temperature levels are recorded prior to and during installation.
Acclimatisation of floorboards prior to installation is not necessary when the average supplied moisture content of the flooring is near the expected average in-service moisture content. Unnecessary acclimatisation can cause problems especially if the floorboards are acclimatised to a building site environment that is somewhat different from the expected in-service environment. This chart provides a guide as to when acclimatisation should be considered.



The local site climate can be assessed using data from the Australian Bureau of Meteorology website at www.bom.gov.au/climate/averages.

The adjacent diagram shows the general relationship between moisture content, relative humidity (RH) and board width. At 25ºC and 60% RH the EMC is 11% and at 25 ºC and 80% RH the EMC is 16%. If the moisture content of the floorboards at the time of installation is higher or lower than the in-service EMC, then the floorboards will either lose or take on moisture and when this occurs there will be either shrinkage or swelling after installation as indicated in the diagram by a change in board width. Acclimatisation is simply a process of getting the moisture content of the flooring closer to its expected in-service moisture content so that shrinkage or swelling of the floorboards will be less after installation.



Suitable subfloors

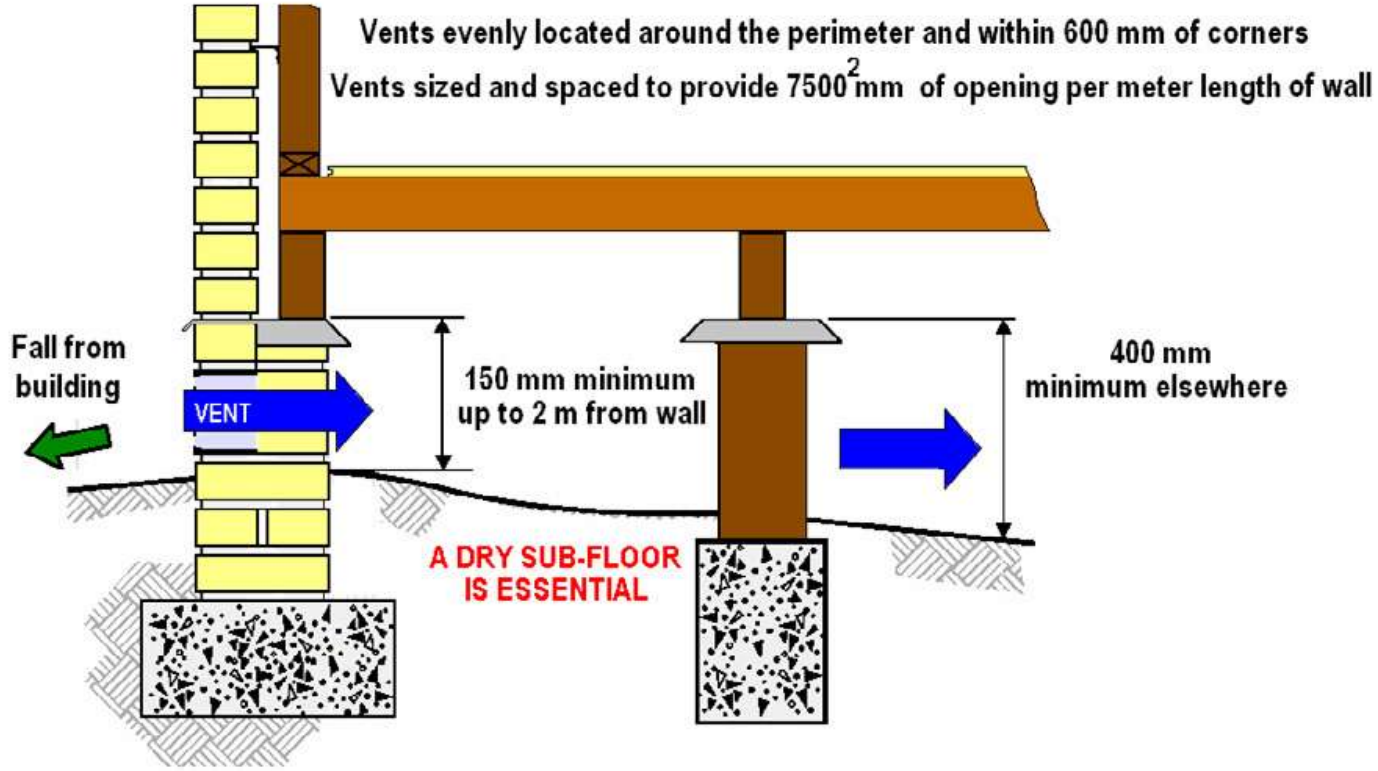
TOPDECK 18mm prefinished solid timber flooring is designed for subfloors that are structurally sound, level, flat, clean and dry, these include;

• Batten on a Concrete slab (80-90mm)

• Sheet flooring such as plywood or particleboard (80-130mm)

• Existing timber floors (80-130mm)

Adequate subfloor ventilation is an important factor in reducing expansion and cupping of hardwood timber flooring. Where humidity remains high beneath a floor, the boards will absorb the moisture and expand.
Important issues about subfloors
1. Air vents should always remain unobstructed
2. Number of air vents and size should meet or exceed BCA requirements
3. Ground level below flooring should be well drained
4. The subfloor ground should be flat, level and clear of any debris. It is recommended that the ground below the subfloor be sealed with an impervious membrane, black plastic polysheet or vapour barrier. The plastic should be taped continuously with a 200mm overlap. As subfloor conditions can change, this alone can greatly improve the performance of a timber floor in the future.



Internal micro climates

The internal environment should also be assessed before installation. Within a dwelling, a number of climates may develop, causing areas of flooring to respond differently within the same dwelling. These include large expanses of glass, fireplaces, fridges, air conditioners, any appliances that vent warm air, the aspect of the house and two-storey construction. All of these can have an effect on the dimensional movement of the boards. When floors are exposed to direct sun through large glassed areas, protection should be considered before, during and after construction. Evaporative coolers add moisture to the air and raise the relative humidity, resulting in moisture contents in the flooring that are higher than under ambient conditions. The likely movement of a floor after installation should also be a consideration when assessing the site. Small differences in moisture content between boards at the time of manufacture (5% is allowed by Australian Standards) together with variable conditions within the house (such as a west-facing room compared to a south-facing) will cause further variation in board width. For this reason, it can be expected that small gaps will occur at the edges of most boards, particularly during drier months. These gap sizes may differ across the floor.

Expansion gaps need to be planed before starting the job. The flooring will expand and contract with changes in moisture content. The expansion gaps at the perimeter walls and around permanent fixtures will allow the floor to move as expected. Insufficient expansion gaps will result in flooring complications. Topdeck recommends a minimum expansion gap at all perimeter walls and permanent fixtures of 10 mm. For domestic applications floor widths over 6m will require an intermediate expansion joint as per Australian Standard AS1684 with an extra allowance for expansion in moist conditions. A smaller expansion gaps every 800mm to 1000mm and spacing of 1mm- 1.5mm (approx 20 cent coin thick). Cork expansion gaps around certain perimeters should be installed level with the timber surface. Expansion joints are best placed at doorways or in line with internal walls.

Installation

This information should only be used as a guide and the installer should apply all NCC / BCA & Australian Standards requirements. Topdeck International recommends that a qualified professional timber flooring contractor installs the timber floor. Topdeck International Pty Ltd makes no warranty or guarantee of the quality of the chosen installer's work or of a particular installation performed by them. Timber flooring boards should be mixed on the floor according to colour and feature, so working from a few boxes is advised. The Customer / Installer must decide the direction in which the floor is to be laid, consider major light sources and floor plans dimensions. It is the sole responsibility of the installer/owner to ensure that site conditions are acceptable for the installation of the flooring. Topdeck International Pty Ltd declines any responsibility or material failure resulting from or connected with site conditions or installation methods. The packaging around Topdeck Timber products is designed to protect it during transport only. Upon delivery timber flooring and decking products should be stored indoors where they can be protected from the elements. Do not store outside. Topdeck solid strip flooring is delivered in strapped bundles within a pack. It is recommended that the bundles are kept strapped until just before laying. *Please refer for specific board width below for additional guidance.* Topdeck prefinished solid timber flooring must be fixed with a recommended polyurethane flooring adhesive and applied using a 5mm v-notched trowel. Spread only enough for 3 or 4 boards at a time as per manufacturer's instructions. Start the first row of boards with the tongue facing the starting wall and the left hand end of the board against the block/wedge on the side wall. Slot the tongue firmly into the groove on the fixed temporary board and then press the board down firmly into the adhesive, then secret nail/staple the board into place. Working from left to right, lay the next board and continue working towards the right then measure and cut a strip to finish the first row, remembering to allow for a minimum 10mm expansion joint. To minimise cutting wastage try to make the off-cut from this board long enough to use elsewhere. As the next row is added, tap the boards gently together using a tapping block for a tight fit. Use a pull tool to fit the last board closest to the wall. Start all new rows with a board at least 450mm shorter or longer than the butt joint used in the previous row. Scribe/rip the last board to fit allowing for the minimum 10mm expansion joint along its whole length. Once the main floor area has been laid, remove the temporary blocks . Clean up excess adhesive as per manufacturer's instructions. Use of strong solvents is to be avoided so that the pre-finished surface is not damaged. Its good practice that all solvents be tested on a sample to ensure the prefinished sample is not damaged.

Secret nailing/stapling boards 80mm-90mm on battens or plywood. As a minimum requirement for secret nailing on plywood with adhesive use 32 mm-long staples or 45mm - long staples or equivalent size nail/staple as specified in AS1684 for battens and plywood / particle board. Battens may be used to compensate for minor fluctuations in concrete level. Lay battens 450mm apart on the plastic membrane at right angles to the direction of the new floor. Adjust levels with plywood or masonite packing and use masonry anchors to attach battens to the slab. For plywood / particle sheeting (recommended minimum thickness of 12mm or greater) to the concrete slab after first laying a polyethylene membrane (minimum 200 micron). Plywood must comply with AS/NZS 2269 - Part 0 Plywood Structural Specifications. Secret-nail the boards permanently to the battens with a secret-nailing gun after apply adhesive to the batten top. A secret-nailing gun will force the boards together at the same time as it drives the nail in at a 45˚ angle. When installing over an existing floor or on a plywood / particle board also use a polyurethane flooring adhesive as per manufacturer's instructions. If nailing into battens, nailing should be on every joist or at 450mm centres. Start by laying the longest length first, in a triangle or "rack" from one corner. Lay first board with groove towards the wall and leave a 10mm expansion gap all round the room between the floor and the wall (not the skirting, if any). This gap will be covered by the skirting. Retain the existing skirting if the new board can slide under it. If not, remove the skirting. Continue each row by laying the similar-length boards in each row, adding and cutting short lengths to finish the row (still leaving a 10mm gap). There must be at least 450mm distance between butt joints in adjacent rows for structural integrity.

Secret nailing/stapling boards 92mm to 130mm on plywood. Install wider flooring by using a combination of secret nailing and full trowel adhesive to attach the hardwood flooring to a solid sheet subfloor. This procedure should be used as above . Secret nailing wide board flooring requires skilled tradespeople, who understand the potential hazards of incorrect installation, and should not be undertaken by novice flooring installers. The installation is similar to that of the 80mm-90mm boards on plywood but more allowances for board movement need to be factored in.

Covering the expansion gap the minimum 10mm expansion gap left between the wall and the floorboards will need to be covered. This can be covered with an appropriate skirting which should be nailed to the wall and not to the floor. If the timber flooring is installed with existing skirtings in place use an appropriate timber beading to cover the gap, fixed to the skirting and not the floor.

Following installation, vacuum thoroughly and clean the floor.

Post installation care and maintenance

- Vacuum or sweep the floor on a regular basis or as needed to remove dirt, sand or grit.
- Soak up liquid spills immediately using a dry towel or dry mop.
- For general cleaning, use ph neutral hardwood floor cleaner & a microfiber mop.
- Fit furniture legs with felt tips / protective caps. Fix rolling furniture with soft rubber casters. Pick up heavy furniture or appliances; do not slide.
- Keep pets nails trimmed to avoid excess scratching.
- Limit direct sunlight on floor by using curtains and blinds in areas that are exposed to high UV rays.
- Maintain relative humidity between 40%-60%. (Product Tolerance RH 35%-65%) Best to avoid the extreme ends of the tolerances.
- Never wet-mop or steam mop a Timber floor. Standing water may cause permanent damage.
- Never use any of the following products on your floor: ammonia-based cleaners, mineral spirits, acrylic finishes, wax based products, detergents, bleach, polishes, oil soap, abrasive cleaning soaps, or acidic materials such as vinegar. Never apply wax treatments to your floor.
- Use interior and exterior doormats at entrances to prevent dirt and moisture from being tracked onto the floor. Area rugs are also recommended in front of kitchen sinks and in high traffic areas. Do not use rugs with solid rubber or vinyl backings. Rugs must be made of a breathable material to prevent moisture entrapment. We recommend using a breathable rug underlay. Mesh or grid patterns are best.

Common questions-

What is the best way to mop my Timber floor? Never wet (or damp) mop your floor. Standing water can damage the floor. You may periodically use a very slightly dampened (near dry) mop to spot-clean; however excessive moisture will dull the finish. For wood flooring in the kitchen, place an area rug in front of the kitchen sink. We recommend using Bona Pro Hardwood Floor Cleaner & Bona Pro Hardwood Floor Mop to clean your floor.
How can I protect the finish of my Timber floor from wear over time? Sweep and vacuum your floor regularly using a broom or dust mop. Brush or felt vacuum heads are recommended as opposed to vacuums with beater bars or hard heads. Use throw rugs both inside and outside doorways to prevent debris from being tracked onto floors. Keep pet's claws trimmed to avoid excess scratches. Avoid contact with excess moisture. Avoid walking on your floors with cleats, sports shoes and high heels. Do not slide heavy furniture or appliances across the floor.
What are the best environmental conditions for my flooring? As a general rule, with geographic exceptions, flooring will perform best when the interior environment is controlled to stay within a relative humidity range of 40%-60% and a temperature range of 18° to 26° Celsius. (In some climates, the ideal humidity range might be higher or lower.) It is the owner's responsibility to maintain appropriate conditions via the use of humidifier and/or dehumidifier. In homes in which occupants are there for a short period of time (weekend home or vacation cabin), or in rooms that are closed off (not heated or air conditioned) to save energy, ventilation is a must even when the home is not occupied.
How do I fix a scratch on my finish? If the scratch is white, the finish has not been compromised and is repairable. Simply using a flooring cleaner, should eliminate these blemishes. If the scratch is deeper but the raw wood is not exposed, light buffing with a white polishing pad can shine up the dull area. Often the damage becomes less obvious. When removing stains from any timber floor, always begin at the outer edge of the stain and work toward the middle. My floor was damaged through the finish.
Can it be repaired? If you have a minor chip or slight damage, this may be minimized with a colour wax stick. If the damage is severe enough, board replacement is typically the best option. In most cases, more than one shade may of colour wax stick be appropriate***.***
Can I refinish my Timber Flooring in the future? Yes, the timber floor can be refinished, but as all repairs are unique, and sanding & polishing is not covered under our warranty. Please always seek assistance from an ATFA Certified Specialist, and always test on a sample plank before you proceed.
What changes can I expect in my flooring from season to season? Timber floors, like all species of hardwood flooring, are subject to changes in temperature and humidity. Seasonal fluctuations in relative humidity may cause the wood flooring to gain moisture with periods of high humidity, and lose moisture during low periods of humidity. These changes may be noticeable. During warm, humid weather, Timber expands. During dry weather, Timber contracts. This seasonal movement is a normal characteristic of Timber flooring, and can be minimized by using a HVAC system (heating, ventilation, and air conditioning) to maintain relative humidity between 40%-60%.
Will the warranty cover the timber flooring if the house is unoccupied for 60 consecutive days or more? No . Even most home insurance companies do not cover timber floors if the property is unoccupied for this period.

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